

CLAIMS:

I claim:

- 1 1. An audio signal mixing apparatus comprising:
  - 2 a first plurality of fixed gain amplifiers, each of said first plurality of
  - 3 fixed gain blocks having an output; and
  - 4 a second plurality of input nodes, each of said second plurality of input
  - 5 nodes being associated with a respective input audio signal,
  - 6 wherein each of said second plurality of inputs nodes being associated
  - 7 with a respective input audio signal requiring a specified amount of gain are
  - 8 coupled together and applied to a corresponding at least one of said first
  - 9 plurality of gain amplifiers, and
  - 10 wherein each of said outputs of said first plurality of gain amplifiers are
  - 11 coupled together.
- 1 2. An audio signal mixing apparatus comprising:
  - 2 a first plurality of input nodes, each of said input nodes being
  - 3 associated with an input audio signal;
  - 4 a first plurality of switches;
  - 5 a first plurality of gain amplifiers, each of said first plurality of gain
  - 6 amplifiers having an input and an output, each of said outputs being coupled
  - 7 together; and
  - 8 a first plurality of summing nodes, each of said first plurality of
  - 9 summing nodes being coupled to a respective one of said inputs of said first
  - 10 plurality of gain amplifiers;
  - 11 wherein for each of said first plurality of summing nodes, each of said
  - 12 first plurality of input nodes is coupled to said each of said summing nodes
  - 13 through an associated one of said first plurality of switches.

1 3. The audio signal mixing apparatus of claim 2 wherein each of said first  
2 plurality of gain amplifiers is a fixed gain amplifier.

1 4. The audio signal mixing apparatus of claim 3 wherein each of said first  
2 plurality of summing nodes is an op amp summing node.

1 5. A method of mixing audio signals from a plurality of sources, said  
2 method comprising the steps of:  
3 summing together at least two of said audio signals that require a  
4 predetermined gain applied;  
5 applying the gain using a circuit comprising at least one of a plurality of  
6 fixed gain amplifiers to produce a weighted signal; and  
7 summing the weighted signal with other signals produced by similar  
8 circuits having different gains.